

# Benefits of Student Response Practices

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## 1.0 Introduction

This report summarises the benefits of using an in-class student response system (TurningPoint) as seen at an event held in January 2014 that showcased good educational practices in and across the University of Bristol's three professional programmes. The report includes the presenters' comments on lessons learned, and feedback from their students.

Notes:

1. The six presentations given by academic practitioners are available to watch online (see section 5.0 for links).
2. Each presentation was concerned with large group teaching, ie between 80 and 240 students.
3. There are other practices elsewhere at the University of Bristol that provide different benefits, but these are out of the scope of this report.

## 2.0 Practices and benefits

### 2.1 Facilitating interactivity

A variety of simple techniques were discussed that any novice user could easily introduce into their teaching practice to enhance interactivity. For example:

1. Through posing a short series of questions at the start of a new topic, the lecturer is able to check the group's prior knowledge, and then pitch the material accordingly.
2. Asking questions at regular intervals throughout a class keeps students alert and enables the lecturer to check they are understanding the material being presented before moving on.
3. When giving students tasks that involve calculations, a combination of question design and use of the technology shows which problems students are struggling with, and where there are going wrong.

Benefits of using such techniques include:

- All students engage with questions and activities, rather than just a few in the front rows.
- Seeing results immediately on the main screen regularly prompts active discussion.
- Students can respond without fear of being embarrassed, as their responses are anonymous to others.
- Each student can see how s/he is progressing compared to the rest of their group.
- Using SRS has led to teachers reflecting upon and improving their own face-to-face teaching practices more generally.

## **2.2 In-class formative quizzes with immediate whole-group feedback**

Several practitioners had introduced formative quizzes at the start or end of weekly lectures/practical classes. These typically contain eight questions and take 10-15 minutes to complete, depending on the amount of corrective feedback that needs to be given. A final slide asks students to input the number of questions they got right, so they can compare their performance to the rest of the group.

Benefits of this practice include:

- Students get practice at answering questions that are in the exam format.
- If the majority of students get a question wrong, the lecturer knows to correct the misconception.
- If a student scores badly compared to others they know they need to focus more in class, review the material, or seek help from their tutor.
- When a student gets the majority of answers correct it enhances their confidence.
- Lecturers have a better sense for how a group is progressing.

## **2.3 Facilitating case-based learning**

A handful of practitioners had used simple SRS techniques to deliver case-based learning to large groups. One practitioner had even included collaborative decision-making so that the cases themselves were interactive.

Case-based learning is known to: improve student concentration and motivation; link theory to practice scenarios; integrate different material taught; improve critical thinking and literacies skills. However, it is usually only suitable for engaging small groups of students. Delivering to multiple small groups required staff and physical space resources that were simply not available.

This practice requires a relatively large investment of time to set up because, although the SRS techniques used are simple, reusable cases need to be developed. The educational benefits are perceived as so significant that the Veterinary programme curriculum is being strategically re-engineered to make room for it, as well as other interactive SRS teaching approaches.

## **2.4 Facilitating large group tutorials**

Several practitioners had replaced multiple small group tutorials with fewer, larger ones to address increasing strain on staff and physical space resources. Various SRS techniques were used to retain educational value and student satisfaction. The benefits include:

- Fewer rooms and staff required - one presenter reported that this approach had reduced the number of staff hours from 96 to just 16.
- More consistent teaching, as the same tutors can see all groups.
- All students participate (rather than just a few dominant group members).
- Promotion of active discussion (eg why so many people went for the same, incorrect answer option).
- Ability to generate reports in Excel and review responses after the sessions.

## **2.5 Collecting unit feedback**

Many practitioners are using SRS to collect unit feedback from students. The benefits compared to other methods (eg Blackboard survey) are that: feedback is collected from almost every student; results are available for immediate analysis and can be followed up with impromptu questions.

Different techniques are being trialled to collect qualitative comments, such as following a series of Likert questions with an 'open' question. This involves asking students to express an opinion or idea verbally, then polling the whole group to see how representative it is across the cohort. Although fewer questions can be asked, the most significant things on students' minds are elicited.

Students have commented that they prefer to give unit feedback using SRS methods because: it is unobtrusive; they feel they are being listened to by the tutor; they like the to see what other students are thinking.

## **2.6 Monitoring Progress and Attendance**

One presenter had advanced her practice to use participant lists, which enable students to be identified in the TurningPoint system. By running weekly formative tests and using TurningPoint's reporting capabilities she was able to:

1. Replace the traditional paper-based method of recording students' attendance at practical classes with a streamlined electronic one.
2. Monitor students' performance over time, by glancing at a spreadsheet that showed their weekly test scores. There had been several occasions when a student's marks had suddenly dropped. In addition, by asking students at the start of each session to enter the amount of time they had spent on pre-session reading, she was able to identify students doing a lot of work but scoring poorly on the tests. These things prompted her to intervene and help those students.

### 3.0 Lessons learnt

- It's quick and easy to start using simple TurningPoint techniques in lectures
- Keep it simple
- Introducing interactivity take times from lectures, so some content has to go or be done differently
- Be careful not to use too many SRS questions in a single lecture because it will switch students off
- Use SRS to collect unit feedback in conjunction with other methods, eg ones that collect qualitative comments

### 4.0 Feedback from students

When asked for feedback on various SRS innovations, students consistently say:

1. It keeps them alert and engaged in class
2. It helps them learn more than usual
3. It helps them to see where they need to study more, particularly as exams approach
4. The novelty does not wear off when used well
5. It enables them to judge how well they are doing compared to their peers
6. They want more of their lecturers to use SRS techniques
7. It should be used for a clear purpose, not 'for the sake of it'

### 5.0 Recorded presentations

#### **TurningPoint: From Apprentice to Advocate**

Dr Lauren Hughes, Physiology and Pharmacology

<http://uob.hosted.panopto.com/Panopto/Pages/Viewer/Default.aspx?id=944afd3d-3dec-4e9d-bdf9-d6b30e603993>

### **Using TurningPoint for formative histology assessments and experiences of collecting student feedback**

Dr Frankie MacMillan, Physiology and Pharmacology

<http://uob.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=8c540726-3f81-477a-bdda-fdcd92ade357>

### **Remodelling small group tutorials for a large programme and collecting standardised feedback**

Dr David Morgan, Cellular and Molecular Medicine

<http://uob.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=68d1790d-ef6a-4fd7-b2f0-806006f6325b>

### **Facilitated case-based learning for large groups**

Professor Sarah Baillie and Emma Crowther, Veterinary Sciences

<http://uob.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=391a7c89-452c-41d1-a1ee-b22b4633b3f7>

### **Using TurningPoint to encourage student engagement in a large group, case-based discussion session**

Professor Judy Harris, Physiology and Pharmacology

<http://uob.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=1f07eb3c-b40a-48fe-866e-667c976f9264>

### **Linking TurningPoint and MAF to monitor attendance and progression**

Liz Gaze, Comparative and Clinical Anatomy

<http://uob.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=8359c770-f115-416e-804e-4c572d4deee7>